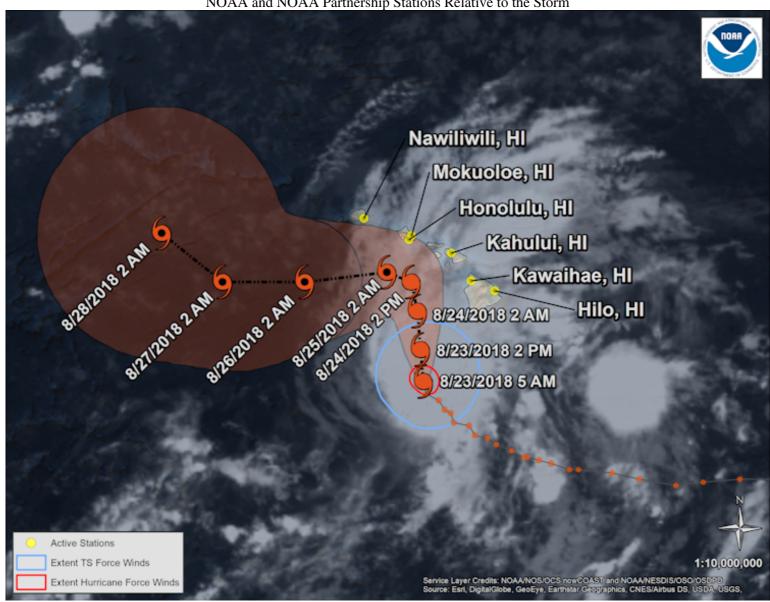


NOAA and NOAA Partnership Stations Relative to the Storm



# Storm Analysis

As of 8/23/2018 06:00 HST water levels across the Hawaiian Islands remain slightly elevated and generally range around half a foot above normal tide levels. Winds of 10 - 20 knots are being observed at most stations with gusts over 20 knots measured on the islands of Hawai'i (Hilo) and Maui (Kahului) over the past 6 hours. Barometric pressure continues to slowly decrease across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit <u>Coastal Inundation Dashboard</u>. For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: RCL

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Select Central Pacific Hurricane Center Advisory Information:

#### **BULLETIN**

Hurricane Lane Advisory Number 36 NWS Central Pacific Hurricane Center Honolulu HI 500 AM HST Thu Aug 23 2018

...LANE CREEPING CLOSER TO HAWAII...
...TORRENTIAL RAIN SOAKING THE BIG ISLAND...

#### SUMMARY OF 500 AM HST...1500 UTC...INFORMATION

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LOCATION...16.9N 157.4W
ABOUT 210 MI...335 KM SSW OF KAILUA-KONA HAWAII
ABOUT 305 MI...490 KM S OF HONOLULU HAWAII
MAXIMUM SUSTAINED WINDS...130 MPH...215 KM/H
PRESENT MOVEMENT...NW OR 320 DEGREES AT 7 MPH...11 KM/H
MINIMUM CENTRAL PRESSURE...949 MB...28.03 INCHES

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

None.

#### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- \* Oahu
- \* Maui County...including the islands of Maui, Lanai, Molokai and

Kahoolawe

\* Hawaii County

A Hurricane Watch is in effect for...

\* Kauai County...including the islands of Kauai and Niihau

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area. A warning is typically issued 36 hours before the anticipated first occurrence of tropical-storm-force winds, conditions that make outside preparations difficult or dangerous. Preparations to protect life and property should be rushed to completion.

A Hurricane Watch means that hurricane conditions are possible within the watch area. A watch is typically issued 48 hours before the anticipated first occurrence of tropical-storm-force winds, conditions that make outside preparations difficult or dangerous.

Interests in the Northwestern Hawaiian Islands should monitor the progress of Hurricane Lane.

For storm information specific to your area, please monitor products issued by the National Weather Service office in Honolulu Hawaii.

#### DISCUSSION AND OUTLOOK

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At 500 AM HST (1500 UTC), the center of Hurricane Lane was located near latitude 16.9 North, longitude 157.4 West. Lane is moving toward the northwest near 7 mph (11 km/h). A turn toward the north-northwest and little change in forward speed is expected today. A turn toward the north is anticipated tonight and Friday, as Lane's forward motion slows. A turn toward the west is expected on Saturday and Sunday, with an increase in forward speed. On the forecast track, the center of Lane will move very close to or over the portions of the main Hawaiian islands later today through Friday.

Maximum sustained winds are near 130 mph (215 km/h) with higher gusts. Lane is a powerful category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale. Steady weakening is forecast during the next couple of days. Lane is expected to remain a hurricane as it draws closer to the islands.

Hurricane-force winds extend outward up to 35 miles (55 km) from the center and tropical-storm-force winds extend outward up to 140 miles (220 km). NOAA buoy 51002 located about 250 miles southwest of the Big Island recently reported sustained winds of 50 mph (80 km/h) and a gust of 64 mph (104 km/h).

The estimated minimum central pressure is 949 mb (28.03 inches).

## HAZARDS AFFECTING LAND

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WIND: Tropical storm conditions are expected on portions of the Big

Island beginning later this morning, with hurricane conditions expected in some areas by tonight. Tropical storm conditions are expected to begin over portions of Maui County later today, with hurricane conditions expected in some areas by Friday. Tropical storm conditions are expected to begin on Oahu late tonight, with hurricane conditions expected Friday into Friday night.

RAINFALL: Rain bands from Hurricane Lane will continue to overspread the Hawaiian Islands. Excessive rainfall associated with Lane will impact the Hawaiian Islands into the weekend, leading to significant and life-threatening flash flooding and landslides. Lane is expected to produce total rain accumulations of 10 to 20 inches, with localized amounts in excess of 30 inches over the Hawaiian Islands. Over 12 inches of rain has already fallen on portions of the Big Island.

SURF: As Lane is slow-moving, large swells generated by the hurricane will severely impact the Hawaiian Islands over the next couple of days. These swells will produce very large and damaging surf along exposed west and south facing shorelines. A prolonged period of high surf will likely lead to significant coastal erosion.

STORM SURGE: The combination of a dangerous storm surge and large breaking waves will raise water levels by as much as 2 to 4 feet above normal tide levels along south and west facing shores near the center of Lane. The surge will be accompanied by large and destructive waves.

#### **NEXT ADVISORY**

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Next intermediate advisory at 800 AM HST. Next complete advisory at 1100 AM HST.

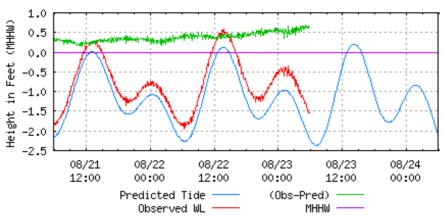
Forecaster Birchard

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Hilo, Hilo Bay, Kuhio Bay - Water Level, Hilo, Hilo Bay, Kuhio Bay - Winds, Hilo, Hilo Bay, Kuhio Bay - Barometric, Kawaihae - Water Level, Kawaihae - Winds, Kawaihae - Barometric, Kahului, Kahului Harbor - Water Level, Kahului, Kahului Harbor - Barometric, Mokuoloe - Water Level, Mokuoloe - Winds, Mokuoloe - Barometric, Honolulu - Water Level, Honolulu - Winds, Honolulu - Barometric, Nawiliwili - Water Level, Nawiliwili - Winds, Nawiliwili - Barometric</u>

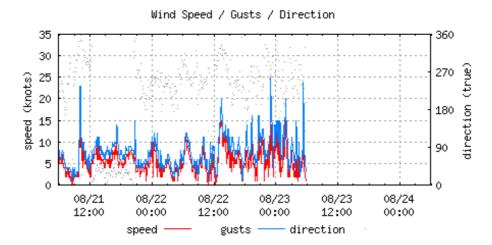
## NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/23/2018 05:48 (HST). Data relative to MHHW Observed: -1.54 ft. Predicted: -2.18 ft. Residual: 0.64 ft. Historical Maximum Water Level: Jul 24 2017, 1.54 ft. Next High Tide: 08/23/2018 14:11 (HST), 0.21 ft.

## NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI



Last Observed Sample: 08/23/2018 05:48 (HST) Wind Speed: 1 knots Gusts: 3 knots Direction: 196° T

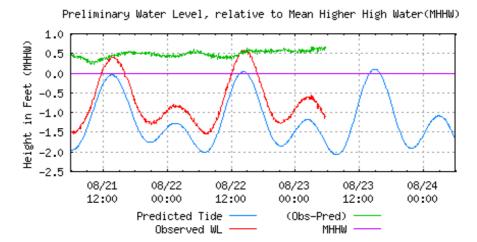
## NOAA/NOS/CO-OPS 1617760 Hilo, Hilo Bay, Kuhio Bay, HI

#### Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 1010 1009 08/21 08/22 08/22 08/23 08/23 08/24 12:00 00:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 08/23/2018 05:48 (HST)

Barometric Pressure: 1012.3 mb

#### NOAA/NOS/CO-OPS 1617433 Kawaihae, HI



Last Observed Sample: 08/23/2018 05:36 (HST). Data relative to MHHW Observed: -1.11 ft. Predicted: -1.76 ft. Residual: 0.65 ft. Historical Maximum Water Level: Dec 15 2016, 1.33 ft. Next High Tide: 08/23/2018 14:51 (HST), 0.10 ft.

# NOAA/NOS/CO-OPS 1617433 Kawaihae, HI

Wind Speed / Gusts / Direction 35 360 30 direction (true) 270 speed (knots) 25 20 180 15 10 90 5 0 08/21 12:00 08/24 08/22 08/22 08/23 08/23 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts -

Last Observed Sample: 08/23/2018 05:36 (HST) Wind Speed: 11 knots Gusts: 17 knots Direction: 274° T

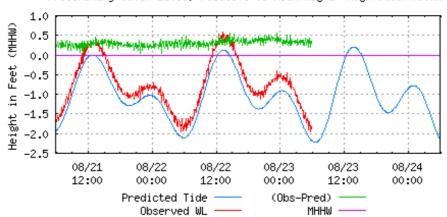
## NOAA/NOS/CO-OPS 1617433 Kawaihae, HI

Barometric Pressure 1017 1016 (QE) 1015 1014 1013 1012 4 1011 1016 1010 1009 08/21 08/22 08/23 08/24 08/22 08/23 12:00 12:00 00:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 08/23/2018 05:36 (HST)
Barometric Pressure: 1009.4 mb

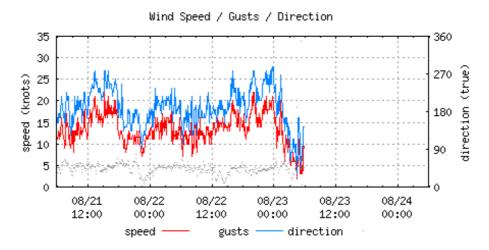
#### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/23/2018 05:48 (HST). Data relative to MHHW Observed: -1.83 ft. Predicted: -2.17 ft. Residual: 0.34 ft. Historical Maximum Water Level: Aug 21 2017, 1.33 ft. Next High Tide: 08/23/2018 13:46 (HST), 0.21 ft.

#### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI



Last Observed Sample: 08/23/2018 05:48 (HST) Wind Speed: 9 knots Gusts: 14 knots Direction: 45° T

#### NOAA/NOS/CO-OPS 1615680 Kahului, Kahului Harbor, HI

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 1010 1009 08/21 08/22 08/22 08/23 08/23 08/24 12:00 00:00 12:00 00:00 00:00 12:00 barometric pressure

Last Observed Sample: 08/23/2018 05:48 (HST)
Barometric Pressure: 1011.9 mb

#### NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 Height in Feet (MHHW) 0.5 0.0 -0.5 -1.0 -1.5-2.0 -2.5 08/21 08/22 08/22 08/23 08/23 08/24 12:00 00:00 00:00 00:00 12:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 08/23/2018 05:48 (HST). Data relative to MHHW Observed: -1.50 ft. Predicted: -2.11 ft. Residual: 0.61 ft. Historical Maximum Water Level: Aug 21 2017, 1.47 ft. Next High Tide: 08/23/2018 13:56 (HST), 0.12 ft.

# NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI

Wind Speed / Gusts / Direction 35 360 30 270 direction (true) speed (knots) 25 20 180 15 10 90 5 0 08/21 12:00 08/24 08/22 08/22 08/23 08/23 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts -

Last Observed Sample: 08/23/2018 05:48 (HST) Wind Speed: 9 knots Gusts: 13 knots Direction: 90° T

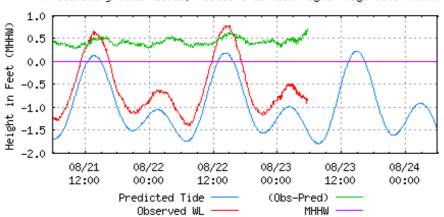
## NOAA/NOS/CO-OPS 1612480 Mokuoloe, HI

Barometric Pressure 1017 1016 (QE) 1015 1014 1013 1012 4 1011 1016 1010 1009 08/21 08/22 08/22 08/23 08/23 08/24 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 08/23/2018 05:48 (HST)
Barometric Pressure: 1013.0 mb

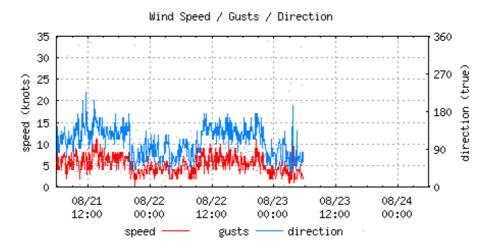
#### NOAA/NOS/CO-OPS 1612340 Honolulu, HI

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/23/2018 05:42 (HST). Data relative to MHHW Observed: -0.84 ft. Predicted: -1.54 ft. Residual: 0.70 ft. Historical Maximum Water Level: Sep 11 1992, 1.47 ft. Next High Tide: 08/23/2018 14:50 (HST), 0.23 ft.

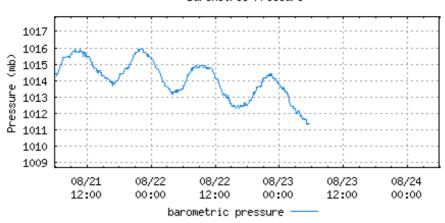
## NOAA/NOS/CO-OPS 1612340 Honolulu, HI



Last Observed Sample: 08/23/2018 05:42 (HST) Wind Speed: 2 knots Gusts: 6 knots Direction: 301° T

#### NOAA/NOS/CO-OPS 1612340 Honolulu, HI

#### Barometric Pressure



Last Observed Sample: 08/23/2018 05:42 (HST)
Barometric Pressure: 1011.4 mb

#### NOAA/NOS/CO-OPS 1611400 Nawiliwili, HI

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 0.5 Height in Feet (MHHW) 0.0 -0.5 -1.0 -1.5-2.0 08/21 08/22 08/22 08/23 08/23 08/24 12:00 12:00 00:00 00:00 00:00 12:00 Predicted Tide (Obs-Pred)

Last Observed Sample: 08/23/2018 05:48 (HST). Data relative to MHHW Observed: -1.29 ft. Predicted: -1.54 ft. Residual: 0.25 ft. Historical Maximum Water Level: Sep 11 1992, 3.15 ft. Next High Tide: 08/23/2018 14:43 (HST), 0.20 ft.

MHHW

Observed WL

# NOAA/NOS/CO-OPS 1611400 Nawiliwili, HI

Wind Speed / Gusts / Direction 35 360 30 direction (true) 270 speed (knots) 25 20 180 15 10 90 5 0 08/21 12:00 08/24 08/22 08/22 08/23 08/23 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts -

Last Observed Sample: 08/23/2018 05:48 (HST) Wind Speed: 12 knots Gusts: 18 knots Direction: 53° T

## NOAA/NOS/CO-OPS 1611400 Nawiliwili, HI

Barometric Pressure 1017 1016 Pressure (mb) 1015 1014 1013 1012 1011 1010 1009 08/21 08/22 08/22 08/23 08/23 08/24 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 08/23/2018 05:48 (HST)
Barometric Pressure: 1013.6 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
1617760	Hilo, Hilo Bay, Kuhio Bay, HI	08/23/2018 05:48 (HST)	-1.54 ft	-2.18 ft	0.64 ft	0.59 ft
1617433	Kawaihae, HI	08/23/2018 05:36 (HST)	-1.11 ft	-1.76 ft	0.65 ft	0.63 ft
1615680	Kahului, Kahului Harbor, HI	08/23/2018 05:48 (HST)	-1.83 ft	-2.17 ft	0.34 ft	0.58 ft
1612480	Mokuoloe, HI	08/23/2018 05:48 (HST)	-1.50 ft	-2.11 ft	0.61 ft	0.68 ft
1612340	Honolulu, HI	08/23/2018 05:42 (HST)	-0.84 ft	-1.54 ft	0.70 ft	0.79 ft
1611400	Nawiliwili, HI	08/23/2018 05:48 (HST)	-1.29 ft	-1.54 ft	0.25 ft	0.32 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce